

### REMARKS

Claims 2 and 3, and claim 12(which was withdrawn from consideration by the examiner as being directed to a non-elected invention) have been canceled.

Claim 1 has been amended to require that the amount of tackifier be from about 30 wt % to about 60 wt %. Support may be found in claim 8 as originally filed and examined.

Claims 1, 8 and 11, as well as claims 3 and 4, have been amended as suggested by the examiner. It is believed that the amendment overcomes the examiner's Section 112 rejection.

Claim 13 has been added. Support may be found in, e.g. claim 8 as originally filed.

No new matter has been added. Entry requested.

Applicants have discovered hot melt adhesive formulations that can be applied at low temperatures (i.e., 200°F to 300°F) and that exhibit good heat stress values and cold tolerance are produced when using ethylene-vinyl acetate copolymers containing 30-50 wt % of vinyl acetate and when using 30-60 wt % of a terpene, modified terpene and/or terpene phenolic tackifier. Applicants' claimed invention is not anticipated by the applied prior art of record and would not have been obvious to one skilled in this art.

Claims 1-11 stand finally rejected as being anticipated by, or in the alternative, as being obvious of Mehaffy *et al.* (U.S. Patent No. 6,117,945), Kosaka *et al.* (U.S. Patent No. 63,944,695), Bodouroglou *et al.* (U.S. Patent No. 4,960,295), or Liedermooy *et al.* (U.S. Patent No. 5,670,566).

In arguing that a prior art disclosure of between about 310 and about 360°F meets the claimed temperature of 300°F and the prior art disclosure of 5 to 25 wt % meets the claimed amount of about 30 wt % tackifier, The examiner urges "that 'about' permits latitude above and beyond the scope of the claims, said term being relative and not absolute". The prior art fails to suggest the claimed invention and provides no motivation that a low application temperature hot melt adhesive can be achieved using a EVA-based adhesive having amounts of tackifier of about 30 wt % or more. A 25 wt % upper limitation does not suggest about 30 wt %. Such a prior art disclosure would not motivated one skilled in the art to use any more than about 25 wt %. Similarly, about 310°F lower limit would not, especially in the hot melt adhesive art, suggest that a hot melt adhesive could be formulated for applications at 300°F or lower. The descriptive word 'about' is not broad and arbitrary, rather, the term is clear and flexible and is similar in meaning to terms such as 'approximately' or 'nearly' (*Ex parte Eastwood*, 163 USPQ 316, 1969).

¶ Mehaffy discloses low application temperature hot melt adhesives. Disclosed for use in the composition of Mehaffy is 5 to 25% of a compatible tackifier. While terpene phenolics are listed among the useful tackifiers, there is no disclosure or suggestion that would motivate one skilled in the art to select such a tackifier for use, let alone use it in an amount greater than taught by Mehaffy. Mehaffy fails to teach all the required claim limitations and, as such, cannot anticipate the claimed invention. Since there is not disclosure that would motivate the skilled artisan to use tackifiers in amount greater than 25 wt %, the Mehaffy also fails to render the claimed invention obvious. Withdrawal is requested.


Kosaka discloses a heat printing sheet comprising a substrate having coated thereon a composition comprising 10-60 % by weight of a tackifier, 5-50% by weight of a wax, 10-60% by weight of an ethylene vinyl acetate copolymer that contains 5-50% by weight vinyl acetate that has a melt index of 4-1000g/min, 5-40% filler and a pigment. The components are selected to be useful for the contemplated purpose and must contain a filler and a pigment. While Kosaka discloses and claims that the vinyl acetate component of the ethylene vinyl acetate copolymer have a melt index of 4-1000 g/10min, preferred for use is vinyl acetate having a melt index of 15-400g/min (col. 1, lines 61-63). The vinyl acetate in the exemplified embodiment (see example 1) has a melt index of 150g/min. Applicants' claimed hot melt adhesive composition is clearly not anticipated by Kosaka. Kosaka provides not suggested to use the components claimed by applications and fails to suggest the claimed invention. Withdrawal is requested.

Bodouroglou discloses hot melt adhesive compositions containing a primer and a glue formulation. The primer is applied at a temperature of between about 310°F and about 360°F (col. 4, lines 6-7). The glue formulation is applied at a temperature of between about 335°F to about 365°F. Bodouroglou neither discloses nor suggests applicants' hot melt adhesive that is formulated for application at temperatures of 200°F - 300°F. Moreover, Bodouroglou teach use of phenolic modified terpene tackifiers in amounts of between about 3 and about 15% by weight. See col. 6, lines 62-63. Clearly applicants' claimed invention is not anticipated by Bodouroglou, and Bodouroglou provides no disclosure which would motivated the skilled artisan combine the components and amounts claimed by applicants. Withdrawal is requested.

Liedermooy disclose a hot melt adhesive composition that contains an ethylene n-butyl acrylate copolymer, a tackifying resin and a wax, and which may optionally contain up to 20% by weight of another polymeric additive, such as ethylene vinyl acetate containing 10-40% by weight vinyl acetate. There is no disclosure or suggestion that a low application temperature hot melt adhesive may be prepared using an ethylene vinyl acetate copolymer as claimed by applicants (5-60% EVA with 30-50% VA), let alone formulating a hot melt adhesive comprising 35 to 45 % by weight of an ethylene vinyl acetate copolymer that is preferred for used (see page 2, lines 22-24) and required for used in claim 8 (35 % EVA with 40 % VA) and claim 11 (35-45% EVA with 30-50% VA). Applicants submit that the claimed invention is not anticipated by Liedermooy. Liedermooy fails to disclose an ethylene-vinyl acetate based low application temperature hot melt adhesive containing a terpene phenolic tackifier, let alone use of the tackifier is amounts of 30 to 60 wt %. Liedermooy provides no disclosure that would motivated the skilled artisan combine the components and amounts claimed by applicants. Withdrawal is requested.

Applicants submit that the claimed subject matter represents an important and patentable contribution to the art. Favorable and early action solicited.

Respectfully submitted,

  
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